

Specification

The following is a marked-up version of the specification with the language that is underlined (“___”) being added and the language that contains strikethrough (“—”) being deleted:

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Change(s) applied
to document,
/L.W./
8/15/2011

Please amend the paragraph starting on p. ~~8~~, paragraph [0023] as follows:

Since DBS systems are similar in nature to CDMA systems in terms of the physical layer signal characteristics (*e.g.*, the waveforms in both systems are direct sequence spread spectrum systems), several of the CDMA receiver functional blocks (or rather the components therein) can be leveraged to integrate the DBS functionality with the CDMA architecture. This approach of reusing and sharing the functional blocks between CDMA and DBS provides a low-cost architecture in terms of external components, die size and total system cost. The low-pass filter cut-off frequency (LP filters 214, 228, 220, and 232) as well as the DC-offset loop corner cut-off (224 and 238) are switched between CDMA and DBS modes. The low-pass cut off frequency refers to the extent of the signal bandwidth (BW) for both modes (*e.g.*, CDMA and DBS), for example. Since both CDMA and DBS systems are wideband systems and have negligible energy near DC, DC-offset loops can function as high-pass filters that have a high-pass cut-off frequency. In the case of CDMA, the -3 decibel (dB) cut-off of the low-pass filter is approximately 630 kilo-Hertz (kHz) and the high-pass corner is approximately 1 kHz. When the MMR system switches to the DBS mode, the low-pass filter cut off is switched to approximately 8.192 MHz and the high-pass corner is switched to approximately 20 – 50 kHz. Hence, the DC cut-off frequency can be switched between values, for example by switching capacitors or other circuit elements. The same VGAs (218 and 230 ~~220~~) are used for the CDMA and DBS systems since the dynamic range requirements in the DBS case at the upper end is limited by the repeater distance and near field effects.